

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: ADRIANO ROSA

For: CORRECTING FOOT ALIGNMENT

Serial No.: 10/604,418 Examiner: Yaritza Guadalupe McCall

Filed: July 18, 2003 Group Art Unit: 2859

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Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

Sir:

AMENDMENT AND RESPONSE TO OFFICE ACTION

AND ADVISORY ACTION

In response to the Office Action mailed November 25, 2005, and the Advisory Action mailed February 7, 2006, kindly amend the above-identified application as follows:

Amendments to the Claims are reflected in the complete listing of claims which begins on page 2 of this paper.

Remarks/Arguments begin on page 15 of this paper.

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Original) A method of making a shoe correction for the alignment of a person's foot, comprising the steps of:

while the person is standing on the foot, inclining the person's lower leg forwardly about the foot a preselected angle from the vertical; and

while maintaining the person's lower leg in the forward inclined position at the preselected angle, measuring the lateral angular alignment of the foot.

2. (Original) A method of making a shoe correction for the alignment of a person's foot according to claim 1 and further comprising the step of selecting from a database appropriate corrective components for incorporation into a shoe to correct the alignment of the person's foot.

3. (Original) A method of making a shoe correction for the alignment of a person's foot according to claim 2 wherein the database has a correlation between a range of lateral angular alignment values and appropriate corrective components.

4. (Original) A method of making a shoe correction for the alignment of a person's foot according to claim 3 wherein the corrective components include combinations of corrective alignment insole components.

5. (Original) A method of making a shoe correction for the alignment of a person's foot according to claim 4 wherein the corrective alignment insole components include supination, pronation, and arch control pads.

6. (Original) A method of making a shoe correction for the alignment of a person's foot according to claim 5 and further comprising the step of constructing a corrective alignment insole from a base insole and the selected supination, pronation, and arch control pads.

7. (Original) A method of making a shoe correction for the alignment of a person's foot according to claim 6 wherein the database further includes a correlation between lateral angular alignment values and an appropriate shoe type.

8. (Original) A method of making a shoe correction for the alignment of a person's foot according claim 7 and further comprising the step of incorporating the corrective alignment insole into the selected shoe type.

9. (Original) A method of making a shoe correction for the alignment of a person's foot according to claim 8 wherein the measuring step is carried out with the aid of a subtalar joint goniometer.

10. (Original) A method of making a shoe correction for the alignment of a person's foot according to claim 9 wherein the measuring step includes the step of inscribing a reference line along the Achilles' tendon portion of the person's foot.

11. (Original) A method of making a shoe correction for the alignment of a person's foot according to claim 10 wherein the measuring step further includes the step of measuring the lateral angular alignment of the reference line.

12. (Original) A method of making a shoe correction for the alignment of a person's foot according to claim 3 wherein the corrective components include supination, pronation, and arch control pads.

13. (Original) A method of making a shoe correction for the alignment of a person's foot according to claim 12 wherein the database further includes a correlation between lateral angular alignment values and an appropriate shoe type, and further comprising the step of selecting from the database an appropriate shoe type that correlates with the measured lateral

angular alignment of the foot.

14. (Original) A method of making a shoe correction for the alignment of a person's foot according to claim 3 and further comprising the step of constructing a corrective alignment shoe by incorporating into the shoe the selected corrective components.

15. (Original) A method of making a shoe correction for the alignment of a person's foot according to claim 3 and further comprising the step of constructing a corrective alignment insole from a base insole and the selected corrective components.

16. (Original) A method of making a shoe correction for the alignment of a person's foot according to claim 2 and further comprising the step of constructing a corrective alignment shoe by incorporating into the shoe the selected corrective components.

17. (Original) A method of making a shoe correction for the alignment of a person's foot according to claim 2 and further comprising the step of constructing a corrective alignment insole from a base insole and the selected corrective components.

18. (Original) A method of making a shoe correction for the alignment of a person's foot according claim 17 and further comprising the step of incorporating the corrective alignment insole into the selected shoe type.

19. (Original) A method of making a shoe correction for the alignment of a person's foot according to claim 1 wherein the measuring step is carried out with the aid of a subtalar joint goniometer.

20. (Original) A method of making a shoe correction for the alignment of a person's foot according to claim 1 wherein the measuring step includes the step of inscribing a reference line along the Achilles' tendon portion of the person's foot.

21. (Original) A method of making a shoe correction for the alignment of a person's foot according to claim 20 wherein the measuring step further includes the step of measuring the lateral angular alignment of the reference line.

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22. (Cancelled)
23. (Cancelled)
24. (Cancelled)
25. (Cancelled)
26. (Cancelled)
27. (Cancelled)
28. (Cancelled)
29. (Cancelled)
30. (Cancelled)
31. (Cancelled)
32. (Cancelled)
33. (Original) A kit for quantifying and making a shoe correction for a misalignment of a person's foot, comprising:
 - a dorsiflexion template adapted to position the person's lower leg at a preselected forward angle with respect to an upper surface of the person's foot adjacent the ankle when the person is standing on the foot; and
 - a subtalar joint inclinometer to measure the lateral angular alignment of the person's foot when the person's lower leg is inclined at the preselected angle.
34. (Original) A kit for quantifying and making a shoe correction for a misalignment of a person's foot according to claim 33 and further comprising at least one corrective alignment insole component.
35. (Original) A kit for quantifying and making a shoe correction for a misalignment

of a person's foot according to claim 34 wherein the at least one corrective insole component comprises:

a base insole in the general shape of a person's footprint having a lateral portion, a medial portion, and an arch stability portion;

at least one supination control pad for adjusting the supination alignment of the person's foot;

at least one pronation control pad for adjusting the pronation alignment of the person's foot; and

at least one arch control pad for adjusting the support of the person's arch.

36. (Original) A kit for quantifying and making a shoe correction for a misalignment of a person's foot according to claim 35 and further comprising a database which correlates a range of lateral angular alignment values combinations with at least one of the corrective alignment insole components;

wherein the at least one of the corrective alignment insole components can be selected from the database based upon the lateral angular alignment measurement obtained from the subtalar joint inclinometer.

37. (Original) A corrective alignment insole assembly for making a shoe correction for the alignment of a person's foot, comprising:

a base insole in the general shape of a person's footprint having a lateral portion, a medial portion, and an arch stability portion, and adapted for correcting both pronation and supination in combination with at least one of at least one supination control pad, at least one pronation control pad, or at least one arch control pad;

at least one supination control pad for adjusting the supination alignment of the person's foot;

at least one pronation control pad for adjusting the pronation alignment of the person's foot; and

at least one arch control pad for adjusting the support of the person's arch;

wherein the at least one supination control pad, the at least one pronation control pad, and the at least one arch control pad are selected based upon a lateral angular alignment measurement of the person's foot.

38. (Original) The corrective alignment insole assembly of claim 37 wherein the base insole is divided into an irregularly-shaped supination control portion extending along the lateral portion of the base insole, an irregularly-shaped motion control portion extending along the medial portion of the base insole, and a crescent-shaped arch stability portion extending along the arch portion of the base insole.

39. (Original) The corrective alignment insole assembly of claim 38 wherein the at least one supination control pad comprises an irregularly-shaped member having a variable wedge-shaped cross section corresponding in size and shape to the supination control portion of the base insole, and having an anterior end, a posterior end, a medial edge, and a lateral edge, wherein the thickness of the at least one supination control pad decreases from the lateral edge to the medial edge, and from a portion along the lateral edge to the anterior end and the posterior end.

40. (Original) The corrective alignment insole assembly of claim 39 wherein the at least one supination control pad ranges in thickness from a maximum of 3/16 inch at the center lateral edge to 1/16 inch at the posterior end, to zero inches at the anterior end and along the medial edge.

41. (Original) The corrective alignment insole assembly of claim 40 wherein the at least one supination control pad comprises an irregularly-shaped supplementary supination control pad portion located at the center lateral portion of the at least one supination control pad.

42. (Original) The corrective alignment insole assembly of claim 41 wherein the at least one supination control pad comprises a supplementary supination control pad comprising an irregularly-shaped member having a generally wedge-shaped cross section corresponding in size and shape to the supplementary supination control pad portion, attached to the supination control pad at the supplementary supination control pad portion for increasing the maximum thickness of the supination control pad at its center lateral portion, and having an anterior end, a posterior end, a medial edge, and a lateral edge, wherein the thickness of the supination control pad decreases from the lateral edge to the medial edge, and from a portion along the lateral edge to the anterior end and the posterior end.

43. (Original) The corrective alignment insole assembly of claim 42 wherein the supplementary supination control pad varies in thickness from a maximum of 1/8 inch at the center lateral edge to zero inches at the anterior end, the posterior end, and the medial edge.

44. (Original) The corrective alignment insole assembly of claim 38 wherein the at least one motion control pad comprises an irregularly-shaped elongated member having a variable wedge-shaped cross section corresponding in size and shape to the motion control portion of the base insole, and having an anterior end, a posterior end, a medial edge, and a lateral edge, wherein the thickness of the at least one motion control pad decreases from the medial edge to the lateral edge, and from the portion along the medial edge to the anterior end and the posterior end.

45. (Original) The corrective alignment insole assembly of claim 44 wherein the at least one motion control pad ranges in thickness from a maximum of 3/16-inch along the anterior portion of the medial edge, to 1/8-inch at the posterior end, to zero inches at the anterior end and along the lateral edge.

46. (Original) The corrective alignment insole assembly of claim 45 wherein the at least one motion control pad comprises an irregularly-shaped supplementary motion control pad portion located at the anterior medial portion of the at least one motion control pad.

47. (Original) The corrective alignment insole assembly of claim 46 wherein the at least one motion control pad comprises a supplementary motion control pad comprising an irregularly-shaped member having a generally wedge-shaped cross-section corresponding in size and shape to the supplementary motion control pad portion, attached to the motion control pad at the supplementary motion control pad portion for increasing the maximum thickness of the motion control pad at its anterior medial portion, and having an anterior end, a posterior end, a medial edge, and a lateral edge, wherein the thickness of the at least one supplementary motion control pad decreases from the center medial edge to the anterior end, the posterior end, and the lateral edge.

48. (Original) The corrective alignment insole assembly of claim 47 wherein the supplementary motion control pad varies in thickness from a maximum of 1/8 inch at the center medial edge to zero inches at the anterior end, the posterior end, and the lateral edge.

49. (Original) The corrective alignment insole assembly of claim 38 wherein the at least one arch stability pad comprises a crescent-shaped member having a generally wedge-shaped cross section corresponding in size and shape to the arch stability portion of the base insole, and having an anterior end, a posterior end, a medial edge, and a lateral edge, wherein the thickness of the at least one arch stability pad decreases from the center medial edge to the lateral edge, the anterior end and the posterior end.

50. (Original) The corrective alignment insole assembly of claim 49 wherein the at least one arch stability pad ranges in thickness from a maximum of 3/16 inch at the center medial edge to zero inch from the anterior end along the lateral edge to the posterior end.

51. (Original) The corrective alignment insole assembly of claim 50 wherein the at least one arch stability pad comprises a supplementary arch stability pad comprising a crescent-shaped member having a generally wedge-shaped cross-section for attachment to the at least one arch stability pad for increasing the maximum thickness of the at least one arch stability pad at the arch stability portion of the base insole, and having an anterior end, a posterior end, a medial edge, and a lateral edge, wherein the thickness of the supplementary arch stability pad decreases

from the center medial edge to the lateral edge, the anterior end, and the posterior end.

52. (Original) The corrective alignment insole assembly of claim 51 wherein the supplementary arch stability pad varies in thickness from a maximum of 3/16 inch at the center medial edge to zero inch from the anterior end along the lateral edge to the posterior end.

53. (Original) The corrective alignment insole assembly of claim 37 wherein the base insole further comprises a resilient heel cushioning zone for cushioning impact to the heel.

54. (Original) The corrective alignment insole assembly of claim 53 wherein the resilient heel cushioning zone comprises a pattern of cutout sections adapted to provide resilient cushioning immediately beneath the person's heel.

55. (Original) The corrective alignment insole assembly of claim 53 wherein the resilient heel cushioning zone comprises a low density gel pad adapted to provide resilient cushioning immediately beneath the person's heel.

56. (Original) The corrective alignment insole assembly of claim 55 wherein the low density gel pad comprises a low density gel polymer.

57. (Cancelled)

58. (Cancelled)

59. (Previously Presented) A subtalar joint inclinometer for measuring the lateral angular alignment of a person's foot when the person is in a standing position, comprising a calcaneal bisection gauge for inscribing a reference line on the heel of the person aligned with the person's Achilles tendon and a protractor for determining the inclination of the reference line when the person is standing.

60. (Cancelled)

61. (Currently Amended) The database according to any one of claims 60-73, 74, 75, 76, 77, or 78 wherein the database further includes a correlation between the plurality of lateral

angular alignment values with a variety of shoe types and wherein the appropriate corrective shoe can be selected for use with the selected at least one corrective alignment insole component.

62. (Cancelled)

63. (Cancelled)

64. (Cancelled)

65. (Cancelled)

66. (Cancelled)

67. (Cancelled)

68. (Cancelled)

69. (Previously Presented) A subtalar joint inclinometer for measuring the lateral angular alignment of a person's foot when the person is in a standing position, comprising:

a base having a first portion adapted to be positioned beneath the heel of a person in a standing position and a second portion orthogonal with respect to the first portion and adapted to be placed adjacent to the Achilles tendon of the person whose heel is positioned on the base first portion;

a heel alignment member adapted to be positioned on the heel of the person whose heel is positioned on the base first portion; and

a protractor scale indicia on one of the base second portion and the heel alignment member and a reference line indicia on the other of the base second portion and the heel alignment member, wherein the reference line indicia is aligned with a zero position on the protractor scale indicia when the person's heel has a zero angular alignment and is adapted to indicate on the protractor scale indicia the degree of angular deviation of the person's foot from zero angular alignment.

70. (Previously Presented) A subtalar joint inclinometer according to claim 69 wherein the heel alignment member is pivotally mounted to the base.

71. (Previously Presented) A subtalar joint inclinometer according to claim 69 wherein the heel alignment member has wings which are adapted to cradle the heel of the person whose heel is positioned on the base first portion.

72. (Previously Presented) A subtalar joint inclinometer according to claim 69 wherein the protractor scale indicia is disposed on the heel alignment member and the reference line indicia is disposed on the base second portion.

73. (New) A database for selecting at least one corrective alignment insole component for making a shoe correction for a misalignment of a person's foot based upon a measurement of a lateral angular alignment of the person's foot, comprising:

a plurality of preselected lateral angular alignment values; and

at least one corrective alignment insole component comprising at least one of a base insole, a supination control pad, a supplementary supination control pad, a motion control pad, and a supplementary motion control pad;

wherein a lateral angular alignment value of -5° to 3° correlates to an assembly of corrective alignment insole components comprising a base insole, a supination control pad, and a supplementary supination control pad.

74. (New) A database for selecting at least one corrective alignment insole component for making a shoe correction for a misalignment of a person's foot based upon a measurement of a lateral angular alignment of the person's foot, comprising:

a plurality of preselected lateral angular alignment values; and

at least one corrective alignment insole component comprising at least one of a base insole, a supination control pad, a supplementary supination control pad, a motion control pad, and a supplementary motion control pad;

wherein a lateral angular alignment value of 3° to 6° correlates to an assembly of corrective alignment insole components comprising a base insole, and a supination control pad.

75. (New) A database for selecting at least one corrective alignment insole component for making a shoe correction for a misalignment of a person's foot based upon a measurement of a lateral angular alignment of the person's foot, comprising:

a plurality of preselected lateral angular alignment values; and

at least one corrective alignment insole component comprising at least one of a base insole, a supination control pad, a supplementary supination control pad, a motion control pad, and a supplementary motion control pad;

wherein a lateral angular alignment value of 6° to 9° correlates to an assembly of corrective alignment insole components comprising a base insole.

76. (New) A database for selecting at least one corrective alignment insole component for making a shoe correction for a misalignment of a person's foot based upon a measurement of a lateral angular alignment of the person's foot, comprising:

a plurality of preselected lateral angular alignment values; and

at least one corrective alignment insole component comprising at least one of a base insole, a supination control pad, a supplementary supination control pad, a motion control pad, and a supplementary motion control pad;

wherein a lateral angular alignment value of 9° to 12° correlates to an assembly of corrective alignment insole components comprising a base insole, and a supplementary motion control pad.

77. (New) A database for selecting at least one corrective alignment insole component for making a shoe correction for a misalignment of a person's foot based upon a measurement of a lateral angular alignment of the person's foot, comprising:

a plurality of preselected lateral angular alignment values; and

at least one corrective alignment insole component comprising at least one of a base insole, a supination control pad, a supplementary supination control pad, a motion control pad, and a supplementary motion control pad;

wherein a lateral angular alignment value of 12° to 15° correlates to an assembly of corrective alignment insole components comprising a base insole, and a motion control pad.

78. (New) A database for selecting at least one corrective alignment insole component for making a shoe correction for a misalignment of a person's foot based upon a measurement of a lateral angular alignment of the person's foot, comprising:

a plurality of preselected lateral angular alignment values; and

at least one corrective alignment insole component comprising at least one of a base insole, a supination control pad, a supplementary supination control pad, a motion control pad, and a supplementary motion control pad;

wherein a lateral angular alignment value of greater than 15° correlates to an assembly of corrective alignment insole components comprising a base insole, a motion control pad, and a supplementary motion control pad.

REMARKS/ARGUMENTS

Claims 1-56 and 59-72 are pending in the application. In this Office action, claims 22-32 and 60-62 stand rejected under 35 U.S.C. §103(a), notwithstanding these claims were previously allowed. Claims 63-68 stand objected to, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Claims 1-21, 33-56, 59, and 69-72 stand allowed.

In this paper, claims 22-32, 60, and 62-68 have been cancelled without prejudice. Claim 61 has been amended to change its dependency. Claims 73-78 have been added and are essentially claims 63-68, respectively, rewritten in independent form to include the limitations of claims 60 and 62. The amendments are believed to place the claims in condition for allowance.

Reconsideration and reexamination of the application is respectfully requested in view of the following remarks.

Rejection Under 35 U.S.C. §103(a)

Claims 22-32 and 60-62 stand rejected under 35 U.S.C. §103(a) as allegedly unpatentable over U.S. Patent No. 5,790,256 to Brown et al. in view of U.S. Patent No. 5,025,476 to Gould et al. The rejection is traversed.

Applicant incorporates all the arguments previously presented in traversal of the rejection of claims 22-32 and 60-62 as though set forth fully herein.

Claims 22-32, 60, and 62 have been cancelled without prejudice. Claim 61 has been amended to change its dependency from claim 60 to rewritten claims 73-78, which have been indicated as allowable. Thus, the rejection of claims 22-32 and 60-62 is moot.

Applicant requests the withdrawal of the rejection of claims 22-32.

The Examiner has indicated that claims 63-68 would be allowable if rewritten in independent form to include the limitations of the base claim and any intervening claims. Claims

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73-78 are essentially claims 63-68, respectively, rewritten in independent form to include the limitations of claims 60 and 62, while avoiding redundancies. The limitations of claim 61 are not incorporated into claims 73-78 because such limitations are believed to be unnecessary for patentability of claims 73-78. Thus, claims 73-78 are allowable. Claim 61 has been amended to depend, alternatively, from claims 73, 74, 75, 76, 77, and 78. Thus, claim 61 is allowable.

Applicant requests the withdrawal of the rejection of claims 60-62, and the allowance of claims 61 and 73-78.

CONCLUSION

For the reasons discussed above, all of the claims are in condition for allowance. Early notification of allowability is requested. If there are any remaining issues which the Examiner believes may be resolved in an interview, the Examiner is invited to contact the undersigned.

Respectfully submitted,

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Dated: February 16, 2006

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